

**IN THE CLAIMS**

For the convenience of the Examiner, all pending Claims are set forth below.

1. **(Currently Amended)** A system for minimizing the loss of information in cordless communications, comprising:

a first data station having control logic, the control logic operable to:

establish a plurality of individual communication channels needed to transmit information between the first data station and a second data station, each of the channels associated with a unique channel frequency; select a first unique channel frequency to be used for the first channel between the two data stations; access a plurality of frequency sets, each frequency of a frequency set corresponding to a channel; **remove any poor quality frequency set from the plurality of frequency sets**; determine parameters relating to a spectral separation between each of the channels, the spectral separation describing a separation between a pair of unique channel frequencies associated with the channels; and select unique channel frequencies for the remainder of the plurality of channels in response to the determined parameters by selecting a frequency from each frequency set, each pair of unique channel frequencies having a spectral separation; and

response logic residing in the second data station, the response logic operable to receive the information from the first data station on the plurality of communication channels.

2. **(Original)** The system of Claim 1, wherein the channels are operable to both transmit and receive information in duplex.

3. **(Original)** The system of Claim 1, wherein the parameters comprise a frequency offset to be used between each unique channel frequency.

4. **(Original)** The system of Claim 1, wherein the parameters comprise optimal spectral spacing between each unique channel frequency used for the individual channels.

5. **(Original)** The system of Claim 1, wherein each channel frequency is changed using a frequency hopping scheme.

6. **(Original)** The system of Claim 1, wherein the control logic is further operable to:

- a) model interference encountered over individual channels between the data stations; and
- b) select parameters that minimize the loss of information over each of the individual channels.

7. **(Currently Amended)** A method for minimizing the loss of information in cordless communications, comprising:

- a) establishing a plurality of individual communication channels between at least two data stations, ~~and~~ accessing a plurality of frequency sets, each frequency of a frequency set corresponding to a channel, and removing any poor quality frequency set from the plurality of frequency sets;
- b) selecting a first unique carrier frequency to be used for the first of the plurality of channels;
- c) determining parameters relating to achieving a maximum throughput of information over the channels between the data stations; and
- d) selecting additional unique carrier frequencies to be used for the remainder of the plurality of channels, in response to the determined parameters by selecting a frequency from each frequency set.

8. **(Original)** The method of Claim 7, wherein the maximum throughput of information over the channels is equal to the maximum throughput of information over the plurality of channels.

9. **(Original)** The method of Claim 7, wherein the determining step comprises measuring error rates for a plurality of frequencies usable for each of the channels.

10. **(Original)** The method of Claim 7, wherein the determining step further comprises:

- a) modeling interference over one of the channels; and
- b) selecting parameters that minimize the loss of information over the plurality of channels.

11. **(Original)** The method of Claim 7, further comprising determining parameters at predetermined intervals of time.

12. **(Original)** The method of Claim 7, further comprising changing the unique frequencies utilizing a frequency hopping scheme.

13. **(Original)** The method of Claim 12, wherein the selecting additional frequencies step comprises separating all of the frequencies at an optimal spectral separation.

14. **(Original)** The method of Claim 7, further comprising selecting all of the unique frequencies from a table.

15. **(Currently Amended)** A method for minimizing the loss of information in cordless communications, comprising:

a) providing at least two data stations having a plurality of communication channels to transmit information between the data stations, ~~and~~ accessing a plurality of frequency sets, each frequency of a frequency set corresponding to a channel, and removing any poor quality frequency set from the plurality of frequency sets;

b) determining a first unique carrier frequency for the first of the channels between the data stations;

c) determining parameters relating to a spectral separation required for the next one of the channels, the spectral separation describing a separation between a pair of carrier frequencies associated with the channels;

d) repeating the steps of determining a first unique carrier frequency and determining parameters for another channel; and

e) selecting unique carrier frequencies for the remainder of the plurality of channels in response to the determined parameters by selecting a frequency from each frequency set, each pair of unique carrier frequencies having a spectral separation.

16. **(Original)** The method of Claim 15, wherein the determining parameters step comprises determining parameters to yield an optimal spectral separation.

17. **(Original)** The method of Claim 15, wherein the determining parameters step further comprises:

a) evaluating whether any signal source is interfering with the channel between the data stations on the first unique carrier frequency; and

b) selecting another carrier frequency for the channel.

18. **(Original)** The method of Claim 15, wherein the parameters represent an error rate measured over the channel.

19. **(Original)** The method of Claim 15, further comprising the data stations transmitting information that is time division multiplexed and time division duplexed over the communication channels.

20. **(Previously Amended)** The method of Claim 15, wherein steps (b)-(e) are performed at regular intervals of time.

21. **(Currently Amended)** An apparatus for minimizing the loss of information in cordless communications comprising control logic, the control logic operable to:

select a first unique channel frequency associated with one of a plurality of communication channels;

access a plurality of frequency sets, each frequency of a frequency set corresponding to a channel;

**remove any poor quality frequency set from the plurality of frequency sets;**

determine one or more parameters relating to a spectral separation between at least two of the channels, the spectral separation describing a separation between a pair of unique channel frequencies associated with the channels; and

select at least one unique channel frequency for the remainder of the plurality of channels using the one or more determined parameters by selecting a frequency from each frequency set, each pair of unique channel frequencies having a spectral separation.

22. **(Currently Amended)** An apparatus for minimizing the loss of information in cordless communications comprising control logic, the control logic operable to:

select a first unique channel frequency associated with one of a plurality of communication channels;

access a plurality of frequency sets, each frequency of a frequency set corresponding to a channel;

**remove any poor quality frequency set from the plurality of frequency sets;**

determine one or more parameters relating to achieving a maximum throughput of information over the channels; and

select at least one unique channel frequency for the remainder of the plurality of channels using the one or more determined parameters by selecting a frequency from each frequency set.